



Seeds For Thought

August 2017 Volume 17, Issue 3

A newsletter of the
Master Gardener
Foundation of
Washington State

In This Issue

From the President 1

Biodegradable
Mulching 2

Garden in a box 3

Can You Dig It? 4

Visit our website:

[MGFWS](http://MGFWS.org)



We now have a calendar! Please check the [calendar](#) for deadlines, meetings, and events in various counties.

Iris photo by Erin Landon Grays Harbor County Master Gardener

From the President

~Kathleen LaFrancis Eaton, MGFWS President



Photo by Richelle Taylor

Happy Summer!

I know you are all busy in your demonstration gardens, clinics, and home gardens. It's a glorious time of year for MGs. Thank you all for everything you are doing and all that you give up to serve as Master Gardeners!

We are delighted to thank several Master Gardeners who have donated to the MGFWS Endowment through registration for the 2017 Advanced Education Conference in Yakima. To date, we have received over \$400 in donations from:

- ~Eileen Baker, King County
- ~ John Dewing, Watcom County
- ~ Kathleen LaFrancis Eaton, Snohomish County
- ~ Casey Leigh, Chelan County
- ~ Joan Sousley, Yakima County

Conference registrations are going well. Some workshops are proving to be very popular. To ensure you get your first choice sign up soon! The tours are very interesting and entertaining as well.

More good news—you will be hearing about our 2018 venue at this year's conference. Master Gardener Foundation of Chelan County has stepped up to host the event in Wenatchee September 26-29, 2018. Save the dates and plan to attend. We are working closely with them to ensure a conference that will meet the needs of Master Gardeners from both sides of the mountains. As you will experience this year, costs are lower east of the mountains. Wenatchee, as Yakima, has much to offer. Many of us have not had the opportunity to enjoy its river walks and lovely offerings.

Our board is running smoothly with more innovative ideas popping up at each meeting. I hope that each of you gets to know who is representing your county at the state foundation. Talk to them learn what's happening. Tell them your ideas. The entire board is working hard to help the state foundation help you. The only way it can do that is for you to put your voice into it. We want to hear what you think.

One issue that came up during this last meeting was that many of us, even board members, don't always check our emails. That became evident when some didn't seem to know about things about which several notices were sent out. Our *(Continued on [page 5](#))*

Biodegradable Mulching – Work in Progress . . .

~~ Mark Amara, Grant-Adams Area Master Gardener



Jeremy Cowan, WSU Horticulture Extension Specialist, discussed the products being demonstrated. He is flanked (left) by Cloudview Farm, Royal City Farm Manager, Jim McGreevy and attendees. On the right-hand side of the picture is paper mulch while plastic mulch is in the middle and another product, Organix, semi-biodegradable mulch is in the left background.

Thirty people attended a biodegradable mulch field day event at Cloudview Farms, Ephrata, on May 25, 2017. Using a mulch laying machine, four commercially available products were laid in 135-ft-long rows. Mulches used included standard polyethylene black plastic, Weedguard Plus paper mulch (a Sunshine Paper Company product), Organix AG, a polylactic acid and petroleum-based mulch blend, and Bioagri's cornstarch based mulch. The range in thicknesses varied from about 0.6-1 millimeters. A green manure cover crop, which consisted of triticale, vetch, forage peas and rye, had been tilled in prior to the treatments. Crop residue fragments of the more durable triticale were abundantly seen in the field though signs of the other crops were not visible.

The trial is part of a multi-year tri-university effort to study biodegradable mulches in farm situations, though the same treatment principles are applicable to small farms and gardens.

Some of the considerations being studied include the impact on the environment, product durability, their breakdown constituents, their ability to degrade while protecting the growing crops, cost comparisons, ease of use, and whether they are realistically adoptable. Washington State University, University of Tennessee, and Montana State University have been collaborating on this project and in-field tests have been run on Washington and Tennessee experiment station farms. Each of those locations is in high rainfall, high humidity, and heavy soils and may not reflect variable climatic and soil conditions in which mulch products may have to perform. As part of an advisory group working with the researchers on the tri-university effort, Mark Amara encouraged the technology adoption working group to consider establishing an on-farm case study in the Columbia Basin where there are light textured soils, high potential wind events, a dry climate, and a wide diversity of irrigated crops in a highly productive environment. The challenge was to find a farm willing to participate.

After extensive research and farm visits, Cloudview Farms, Ephrata, owned by Jim Baird and managed by Josh Ewert and Carli Thompson was settled on for 2017.

The soil is a well-drained deep silt loam (called Esquatzel according to Web Soil Survey) in a high (potential) wind area in a 6-9" annual rainfall zone with long dry hot summers. Mulches were laid down and will be drip-irrigated using two drip tapes per row. Drip irrigation is preferred rather than using overhead sprinklers, which tends to accelerate mulch degradation.

Setting up the machine took some tweaking though the skill and experience of the equipment operator, Jim McGreevy, made it look easy. Even with his guidance, there were challenges in laying the mulches down. The PE plastic mulch was the most durable and easy to install. However, it is not biodegradable and will be removed at the end of the growing season. Where the ground was irregular, the machine's disk coulters cut the paper mulch, which ripped along its edges, and, whenever the 3 point hitch wobbled, the paper zagged and folded. Covering up the edges with a

(Continued on [page 6](#))

Dirt, roly-pollies part of award-winning gardening program

~~Scott Weybright, CAHNRS Communications Coordinator, WSU

Worms and roly-pollies work great at getting kids interested in gardening, and digging for these critters in a box of dirt is a big hit.

That's one lesson the Spokane County Master Gardeners have learned over the past 11 years of their Garden in a Box program, which will receive the International Search for Excellence Award at the International Master Gardeners conference in July.

The program, designed by Spokane County Master Gardeners, sends volunteers to elementary after-school programs throughout Spokane Public Schools to teach kids about gardening and raising plants.

No-budget beginnings

“Our presentations involve activities and interactions with insects, compost and several other topics,” said Susan Malm, a Master Gardener volunteer. “We had no budget when we started, so we made most of the materials from scrap and created hands-on activities.”

The Garden in a Box program has seven different subject areas, which volunteers present in an annual cycle to the kindergarten through sixth graders in the after-school program. That way, children who attend every year will learn something new each time.

Good, bad and ugly

One of their annual programs, for example, is called “The Good, the Bad, and the Ugly” and focuses on invertebrate animals that live in gardens. Volunteers talk about beneficial, harmful and neutral insects, and bring in a few live examples. Like pill bugs.

“That is the all-time kid favorite,” Malm said of the insects, often called ‘roly-pollies’ by kids. “We give them plastic spoons to dig around with, and it’s hard to pull them away because they have so much fun.”

At the end of each program, the kids get to plant seeds in a pot to take home with them.

“That’s an integral part of the program, making sure they have something to take home and watch develop and grow,” Malm said.

Sowing seeds

This spring, the program centered around seeds. Volunteers spent the winter refurbishing the bins for the seed program, which includes large models showing the three parts of a seed. Then in the schools, they showed students the oversized artificial seeds.



Spokane County Master Gardener volunteers work with students on a Garden in a Box program this spring.

(Continued on [page 6](#))

Can You Dig It?

The first of July has come and gone, meaning that we are less than six weeks away from the registration deadline for the Master Gardener Conference in September. Registration fees go up \$30 after August 15th!

Be sure to take this opportunity to be part of one of the best MG conferences Washington State has ever seen!

Just look at all we have packed into a little over two days:

- Attend eight great classes (all approved for CE) from the over 30 that are offered,
- Take part in the exciting opening session (special happenings may occur!).
- Great keynote speakers and awesome food at the luncheon and banquet,
- And the fun reception on the plaza featuring "Sharing Success" and our favorite musical group: The Late Bloomers.
- There's a Marketplace Store where you'll find MG logo clothing, gardening books, and much more.
- The raffle with dozens of great prizes is always fun, and supports our State Foundation.
- The Silent Auction with many great things to bid on.
- Go on one or two of the fun and informative pre-conference tours.
- The conference is a great way to meet other gardeners from around the state.

Maybe you've never gone to one of the conferences because you couldn't take the time or spend the money.. Well now here's your chance! It's right the center of our great state -- an easy drive from almost anywhere. And costs in Yakima are very reasonable... with free parking, free wi-fi, and breakfast included at the conference hotels.

So, right now, before any more time goes by, log on to the [Conference Website \(http://canyoudigit-2017.org\)](http://canyoudigit-2017.org), go to the page called "Registration", and follow the instructions to get signed up.

DON'T DELAY!

Can You Dig It?!



2017 Conference Planning Team
Photo by John Strong

Seeds for Thought is a quarterly publication of the
Master Gardener Foundation of Washington State (MGFWS)
Published February, May, August & November

Officer	Name	County	Email address
President	Kathleen Eaton	Snohomish	presidentmgfws@gmail.com
Secretary	John Strong	Yakima	strongware@me.com
Treasurer	Margaret Morris	Yakima	Mmorris0615@hotmail.com
VP Peninsula	Candice Gohn	Jefferson	cgohn@embarqmail.com
VP Northwest	Linda Bergquist	Whatcom	lbergquist41@gmail.com
VP Southwest	MaryJo Christensen	Lewis	christensenmj@comcast.net
VP Metro	Carolyn Carlson	Snohomish	dodecarlson@peoplepc.com
VP Eastern	Kathy Brenberger	Benton-Franklin	kbrenberger@frontier.com
WSU MG Program Leader	Nicole Martini	WSU	nmartini@wsu.edu

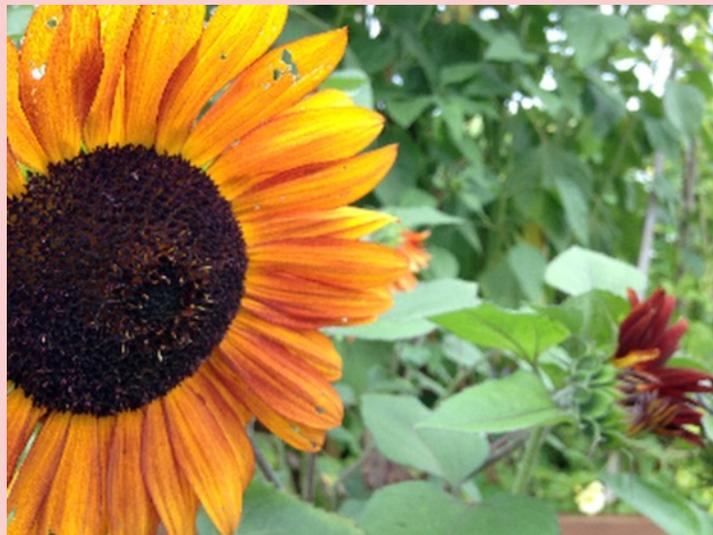
(President's Message Continued from [page 1](#))

new website has a calendar function on it. All regular tasks, jobs, deadlines, etc. for MGFWS including, but not limited to, scholarships, awards, board meetings, and so on are on the calendar.

Click on the small calendar on the HOME page and you can navigate backward and forwards to see if you missed something in the past. If you are on a committee and need to have something added or notice an obvious error, please contact Rachel Lewman at lewmannation@gmail.com.

I invite you all to get involved. Each state board member will be selling raffle tickets at the Yakima Conference September 21 – 23, 2017, you'll recognize us by the hats we'll be wearing. Our next board meeting is conveniently scheduled at 7 pm Wednesday, September 20, after the tours. All MGFWS board meetings are public. I am personally inviting you to attend this meeting to learn more about what's happening. There will also be a short instructive session on what's new with the foundation in the general session.

See you in Yakima! Until then enjoy the garden.



Sunflower photo
by Ethan Landon

Biodegradable Mulching (Continued from [page 2](#))

shovel after installation was necessary on the paper mulch and with other biodegradable mulches to ensure that it would not blow off and would be uniformly stretched. How these materials break down over time will be evaluated as well as recording the perceptions of the farmer as to their success or not.

Squash seedlings were planted in holes made in the mulches.

Multiple strips of competing products were installed in the field for comparison

While the paper mulch meets the national organic standard and completely disintegrates, the other products are not fully biodegradable and do not currently meet the National Organic Program standards. Since most products contain petroleum-based components, they are unlikely to completely break down though over time that remains to be seen. The plan is to hold another field day in late summer and/or fall to look at mulch degradation and/or evaluate the mulch products which will be tilled into the ground and then again the following spring to evaluate the ground in an attempt to see what is left. Product costs may also be compared. Currently, the cost of plastic mulch is approximately one-third the costs of paper or the semi-biodegradable products which may have an impact on adoptability though as new products are introduced, costs will undoubtedly come down as demand grows.



Josh Ewert, Cloudview Farm, Ephrata Farm Manager, and Jeremy Cowan evaluate paper mulch laying which ripped along its edges during installation.

Garden in a Box (Continued from [page 3](#))

“We gave them soaked lima beans to dissect, so they could find the parts they’d seen in the models,” Malm said. “They also planted real seeds, and we talked about what a plant needs to germinate. Then they took the pots home.”



Students dig through compost to find different components with a Spokane County Master Gardener.

Overwhelming success

Garden in a Box has generated overwhelming positive feedback, from kids, parents, and volunteers alike, said Tim Kohlhauff, a Washington State University Extension coordinator. That’s one reason they submitted the program to International Master Gardeners for an excellence award.

“We wanted more people to learn about what our volunteers are doing,” said Kohlhauff, who oversees the Spokane County Master Gardener program. “It has an impact on these kids, and it’s relatively inexpensive and easily replicable. We’re hoping other groups can take what we’ve learned and develop their programs.”

For Malm, getting the chance to volunteer with kids is worth the time and energy invested.

“It’s so much fun to watch a kid who’s never touched a bug pick up a roly-polly or pick up worms during our compost program,” she said. “All of our materials are hands-on, and the hardest part is prying them away when we’re finished.”

The program is also available to youth groups and other programs around Spokane County.